

APRIL/MAY 2023

GOCH25C/DOCH25C — DAIRY CHEMISTRY

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions

1. What are the general composition of milk? T.V.Malai
2. Define sterilization.
3. What are the minerals in Milk.
4. What are the effects of heat on Milk vitamins?
5. Mention two factors influencing cream separation.
6. How will you estimate fat in desi butter?
7. Write about spray drying process.
8. What are the ingredients needed to manufacture ice cream?
9. Dairy detergents – explain.
10. How detergents are classified?



SECTION B — (5 × 5 = 25 marks)

Answer ALL questions

11. (a) Explain in detail about pasteurisation process.

Or

- (b) Describe the factors affecting the gross composition of milk.

12. (a) Write a note on the physical properties of milk protein.

Or

- (b) How will you estimate the amount of lactose in milk? – explain.

13. (a) Briefly explain the gravitational method of separation of ice cream.

Or

- (b) Write a note on chemistry of creaming process.

14. (a) Discuss in detail about the principle involved in drum drying and foam drying.

Or

- (b) Describe the role of emulsifiers in ice cream stabilization.

15. (a) Explain in detail about the characteristics of dairy detergents.

Or

- (b) Write a note on hypochlorite solution.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions

16. Elaborately explain the chemical changes taking place in milk due to processing parameters.

17. (a) Briefly explain the reaction of milk proteins with

(i) Formaldehyde

(ii) Ninhydrin

- (b) Write a note on milk vitamins. (5 + 5)

18. (a) Explain the process of manufacture of desi butter

- (b) Discuss about cream neutralization technique.

19. In detail discuss about the ingredients needed for the manufacture of ice cream and their percentage composition.

20. Write a detailed note on washing procedure.